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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
ANDERSON, CATHARINE L	
ART UNIT	**PAPER NUMBER**
3761	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/664,472	GRAEF ET AL.	
	Examiner	Art Unit	
	C. Lynne Anderson	3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-17,19-31,33-44,46-51 and 53-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-17,19-31,33-44,46-51 and 53-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 6-17, 19-22, 27-31, 33-44, 46-51, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mesek (4,960,477) in view of Westland et al. (5,998,511).

With respect to claims 1 and 55, Mesek discloses all aspects of the claimed invention but remains silent as to the crosslinking of the cellulosic fibers. Mesek discloses an absorbent composite, as shown in figure 7, comprising a fibrous matrix and superabsorbent material. The superabsorbent material 135 is distributed in the fibrous matrix 114 in a plurality of bands that extend continuously along the composite's length, as shown in figure 5. The regions between the bands comprise fibrous liquid distribution zones 133, and the fibrous matrix 114 comprises cellulosic fibers, as disclosed in column 11, lines 19-25.

Westland discloses the use of crosslinked cellulosic fibers in an absorbent article. Crosslinking the cellulosic fibers improves the liquid acquisition rates and increases the absorbent capacity of the cellulosic fibers, as disclosed in column 3, lines 15-27.

It would therefore be obvious to one of ordinary skill in the art at the time of invention to crosslink the cellulosic fibers of Mesek to provide the fibers with improved acquisition and capacity.

With respect to claim 2, the fibrous matrix 114 is free of superabsorbent.

With respect to claim 4, the bands 135 are substantially parallel, as shown in figure 5.

With respect to claims 6-9, the bands 135 comprise fibrous material, the fibrous material being resilient synthetic fibers, as disclosed in column 11, lines 40-46.

With respect to claims 10 and 11, the claims are anticipated by Mesek due to the fact that claims 10 and 11 do not recite or require the resilient fibers to be chemically stiffened fibers. The scope of claims 10 and 11 still allow for the resilient fibers to be synthetic fibers.

With respect to claim 12, the synthetic fibers are polyolefin, as disclosed in column 12, lines 31-35.

With respect to claim 13, the claims are anticipated by Mesek due to the fact that claim 13 does not recite or require the fibers to be polyester fibers.

With respect to claims 14 and 15, the claims are anticipated by Mesek due to the fact that claims 10 and 11 do not recite or require the fibers to be matrix fibers.

With respect to claims 16-17 and 20-21, the superabsorbent material is present in an amount from 5% to 70%, as disclosed in column 14, lines 48-52.

With respect to claim 19, the superabsorbent material is either in the form of particles or fibers, as disclosed in column 11, lines 44-46.

With respect to claim 22, the superabsorbent material absorbs at least 10 times its weight, as disclosed in column 11, lines 40-43.

With respect to claims 23-24, the composite further comprises a wet strength agent, the wet strength agent being polyacrylamide, as disclosed in column 12, line 19.

With respect to claims 27 and 28, Mesek discloses all aspects of the claimed invention but remains silent as to the basis weight and density of the composite. Mesek discloses in column 18, lines 50-55, the density of the fibrous matrix, exclusive of the superabsorbent material, but does not disclose the density of the entire composite. It would have been obvious to one of ordinary skill in the art at the time of invention to make the composite with a basis weight of 50 to 1000 gsm and a density of 0.02 to 0.7 g/cc, since it has been held that where the general conditions of the claim are disclosed in the prior art, determining the optimum or workable ranges involves only routine skill in the art.

With respect to claims 29 and 30, the fibrous matrix is present in about 15% or 45% of the composite, as disclosed in column 13, lines 48-52. The fibrous matrix is crosslinked cellulose or wood pulp fibers, as disclosed in column 11, lines 19-29.

With respect to claims 31 and 46, the fibrous matrix may comprise superabsorbent material, as disclosed in column 15, lines 44-48.

With respect to claims 33, 34, 36, and 37, the claims is drawn to an article of manufacture, and the method of making the article is therefore a product-by-process limitation. Mesek discloses the identical structure of the claim, and therefore all claimed limitations.

With respect to claims 35 and 38, the absorbent composite is part of an absorbent article, as shown in figure 5, comprising a liquid pervious facing sheet 112 and a liquid impervious backing sheet 116.

With respect to claim 39, the article further comprises an acquisition layer 131, as shown in figure 7.

With respect to claim 40, the article further comprises an intermediate layer 137 between the acquisition layer 131 and storage layer, the storage layer comprising the fibrous matrix 133 and the superabsorbent material 135, as shown in figure 7.

With respect to claim 41, the intermediate layer 137 is fully capable of acting as a distribution layer.

With respect to claims 42 and 44, the article is a diaper, which is a type of feminine care product.

With respect to claim 43, the top sheet 112 is joined to the backing sheet 116, as disclosed in column 10, lines 21-24.

With respect to claim 53, the superabsorbent material 135 swells, as disclosed in column 2, lines 34-36.

With respect to claim 54, the bands 135 and liquid distribution zones 133 alternate across the composite's width, as shown in figure 7.

Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mesek (4,960,477) in view of Westland et al. (5,998,511) as applied to claim 1 above, and further in view of Schmidt et al. (6,294,710).

Mesek discloses all aspects of the claimed invention with the exception of a wet strength agent. Schmidt discloses the use of a wet strength agent for use with cellulosic fibers, the wet strength agent comprising polyamide-epichlorohydrin or polyacrylamide, as described in column 6, line 62 to column 7, line 12. It would have been obvious to one of ordinary skill in the art at the time of invention to construct the composite of Mesek with a wet strength agent, as taught by Schmidt, to provide increased permeability, flexibility, and hydrophilicity (See Schmidt, column 6).

With respect to claim 25, see Schmidt, column 7, lines 1-12 and column 14, line 49.

With respect to claim 26, Schmidt discloses the wet strength agent to be present in an amount of 2% but fails to disclose the amount of 0.25%. It would have been obvious to one of ordinary skill in the art at the time of invention to provide the wet strength agent in the amount of 0.25%, since it has been held that where the general conditions of the claim are disclosed in the prior art, determining the optimum or workable ranges involves only routine skill in the art.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Lynne Anderson whose telephone number is (703) 306-5716. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Schwartz can be reached on (703) 308-1412. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA
cla
November 12, 2004

LI Schwartz

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